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ORIGINAL ARTICLE

THE IMPORTANCE OF TEAMWORK IN PATIENT AIR TRANSPORTATION A IMPORTÂNCIA DO TRABALHO EM EQUIPE NO TRANSPORTE AÉREO DE PACIENTES LA IMPORTANCIA DEL TRABAJO EN EQUIPO EN EL TRASPORTE AÉREO DE PACIENTES

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ABSTRACT

Objective: to understand the daily work of health professionals in patient air transportation. **Method:** case study, WITH qualitative approach, carried out in a Private Aeromedical Transportation Company, founded in 1996, in the city of Belo Horizonte, Minas Gerais, Brazil. The data were produced through a semi-structured interview script. Interviewees were 22 physicians and nurses. **Results:** information showed the joint action of the health professionals, the synchrony and the collaborative attitude in a work environment permeated by subjectivities. **Conclusion:** this study allowed us to show that health professionals who work in air transportation have different interpretations regarding the work they perform and team work takes a prominent position. **Descriptors:** Patient Transportation; Emergency Medical Services; Human Resources in Health.

RESUMO

Objetivo: compreender o cotidiano de trabalho dos profissionais da saúde no transporte aéreo de pacientes. **Método:** estudo de caso, de abordagem qualitativa, realizado em uma Empresa Privada de Transporte Aeromédico, fundada em 1996, na cidade de Belo Horizonte, Minas Gerais/Brasil. Os dados foram produzidos por meio de um roteiro de entrevistas semiestruturado. Foram entrevistados 22 médicos e enfermeiros. **Resultados:** as informações mostraram a atuação conjunta dos profissionais da saúde, a sincronia e a atitude colaborativa em um ambiente de trabalho permeado de subjetividades. **Conclusão:** a realização deste estudo permitiu mostrar que os profissionais da saúde que atuam no transporte aéreo possuem diferentes interpretações a respeito do trabalho que realizam e o trabalho em equipe assume posição de destaque. **Descritores:** Transporte de Pacientes; Serviços Médicos de Emergência; Recursos Humanos em Saúde.

RESUMEN

Objetivo: comprender el cotidiano de trabajo de los profesionales de la salud en el transporte aéreo de pacientes. **Método:** estudio de caso, de enfoque cualitativo, realizado en una Empresa Privada de Transporte Aeromédico, fundada en 1996, en la ciudad de Belo Horizonte, Minas Gerais/Brasil. Los datos fueron producidos por medio de una guía de entrevistas semiestructurado. Fueron entrevistados 22 médicos y enfermeros. **Resultados:** las informaciones mostraron la actuación conjunta de los profesionales de la salud, la sincronía y la actitud colaborativa en un ambiente de trabajo permeado de subjetividades. **Conclusión:** la realización de este estudio permitió mostrar que los profesionales de la salud que actúan en el transporte aéreo poseen diferentes interpretaciones al respecto del trabajo que realizan y el trabajo en equipo asume posición de destaque. **Descriptores:** Transporte de Pacientes; Servicios Médicos de Urgencia; Recursos Humanos en Salud.

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INTRODUCTION

Wars have been crucial to the development of patient air transportation. In World War I (1914-1918), there were already large aircrafts with trained doctors and nurses and with some knowledge of flight physiology.

In World War II (1939-1945), Germans and Americans carried out the removal of wounded in military airplanes, adapted with oxygen system, supply of medicines and materials for the care and the presence of health professionals during the transportation. In the Korean War in 1955, and in the Vietnam War in the 1960s, the first helicopters came to being, which allowed landing in hard-to-reach places.¹

The first health professionals who worked in this scenario experienced many difficulties related to the lack of knowledge in an environment totally different from the usual one. Some of the testimonies of nurses who performed the care of the wounded, in World War II, inside airplanes, reflect the great challenges faced in this hostile environment.² Later, the speed and refinement of aircrafts became relevant for the transportation of serious patients, even out of times of catastrophes and wars. Thus, with the introduction of faster aircrafts and the knowledge of aerospace medicine in relation to flight physiology, it became possible to provide more appropriate assistance to transported patients.³

The focus of the present study is on air or aeromedical transportation, with its peculiarities and the characteristics of transported patients. Nowadays, due to population growth mainly in locations far from large urban centers, there has been an important demand for transferring critical patients from lower resource locations to centers with better conditions of care. In order to meet this demand, there have been changes in the public system and insertion of the private sector, and the need for qualified staff to provide care.⁴

Considering the stressors described in the literature, the limitations of the work environment and based on my own experience, I can say that health professionals face difficulties in everyday practice. In order to overcome them, protocol knowledge, in-flight safety training and good planning are required. Even so, there is no way to avoid certain incidents during transportation.

This work process is permeated by emergency situations in the transportation of conscious and unconscious, serious or stable patients, and of any age. Despite all planning

and organization, the environment is permeated by adverse situations and complications at all times. For this reason, studies about possible complications, especially the knowledge of nursing care, are extremely important.⁵

The difficulties encountered in day-to-day work range from the patient's condition to the flight's environmental changes, that is, those we can control and those that are not within our reach. Thus, understanding the work of health professionals in the patient air transportation is very appropriate. In addition, it promotes a reflection on their daily practice and explains how the work environment influences the actors involved, the performance of their actions, their postures and their behaviors.

The objective of this study was to understand the daily work of health professionals in patient air transportation.

METHOD

Aiming know the daily work of health professionals working in patient air transportation, researchers chose the qualitative case study modality. The choice of the qualitative approach is due to the fact that it is applied to the study of relationships, beliefs, perceptions and opinions taking into account how subjects experience the facts and phenomena observed.

The interviewees referred to the daily life in an analogical way and, in this sense, they brought important meanings to the understanding of the work they perform.

The subjects were chosen intentionally, and twenty-two subjects were interviewed, including physicians and nurses who had and have worked since the creation of the company. The age group was approximately 24 to 55 years, of both sexes.

The participation of the interviewees was voluntary, free of charge, and their identity as well as information that could identify each health professional individually was protected.

The scenario of this study was a private company specialized in patient transportation, founded by the Federation in 1996, in the city of Belo Horizonte, Minas Gerais, which has operated continuously, with two teams on duty, consisting of "physician and nurse". The aircrafts designed for the transportation are homologated by ANAC and adapted with stretchers. They are denominated as air ICU, and are located in a private hangar in the city of Belo Horizonte, Minas Gerais.

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A semi-structured interview was used for collecting data for the research. The interviews were conducted individually, recorded in a digital voice recorder with the prior authorization of the subjects and transcribed in full.

The criterion used to finish the interviews was the saturation of data in which the process was interrupted when the information became repetitive. In the twenty-second interview, researchers could perceive the saturation of data.

For the information analysis, the Laurence Bardin's content technique was used, based on the following steps: 1) pre-analysis; 2) exploration of the material; and 3) treatment of results and interpretation.⁶

The research project had Opinion No. ETIC 092/92, in accordance with Resolution 196/96 of the National Health Council, repealed by Resolution 466/12. All participants agreed and signed the Free and Informed Consent Form, after researchers received a favorable opinion from the Research Ethics Committee (COEP-UFMG).

RESULTS

In the aero-medical transport scenario, critical patients need rapid and effective care. Thus, this service requires the involvement of health professionals so that the work to take place effectively. Therefore, the effectiveness of teamwork depends on the involvement of employees in a personal or individual way, facilitating cohesion and strengthening the link between professionals.⁷

Considering that teamwork occupies a prominent place in this context, the following speeches of those interviewed demonstrate the importance of cohesive work:

Because our work ... our team is you and the nurse. We are a team, we have to work as such, otherwise care will not be provided. (P2)

It is a small team that has to work in adverse situations in the airspace. (P4)

There are only two people working, when we are actually in the flight. Up there, we have to eliminate all possibilities of making a mistake; our chance of error is minimal... (N14)

And there is the fact that we and our partner are in a different place from a hospital context, where there are other professionals around us, to whom in a situation of stress or emergency we can ask for help. (N6)

Team, in air transportation, is reduced, composed only by a nurse and a physician. It requires, therefore, more attention in every

sense, so that no mistakes are made. In order for the work to be carried out properly, there must be joint action and interdependence. Inside the aircraft, there is no way to count on the presence of other health professionals, "they are only two" during the flight, who, in addition, work in a restricted air space where movement is limited.

Thus, there is a difference between working in patient air transportation and working in the hospital setting regarding the physical area, available resources and the number of health professionals. However, there is a similarity to intensive care units, mainly due to the fact that the patient needs intensive care during transportation. Intensive care is based on a tripod: severe patient, highly technical equipment and specialized multiprofessional team with knowledge and experience to provide care and treatment to the patient and to handle all available equipment and devices.⁸

Despite the availability of state-of-the-art technological resources in air transportation, the demand and responsibility among healthcare professionals who provide care is increasing. In this sense, there must be an interaction of knowledge among practitioners in order to offer the transported patient an adequate assistance. For this purpose, practitioners must show confidence, even though the environment is adverse. Some situations become complicated because the team is small and the patient is dependent and severe.

In the work inside the aircraft, "there are only two" practitioners, there is no way to count on another professional. Besides, inside the aircraft the space is restricted, which makes it difficult to provide care.⁹ Therefore, the joint and synchronized action between the nurse and physician becomes an integral part of the care provided to critical patients.

The staff is very good! They all are very experienced; this is critical to the service. As we have known each other for a long time I can talk [about them]... I do not know the people who are coming, who are new. But all the nurses and physicians who work here are very reputed. (N7)

The one who disagrees with the team ends up getting in the way because of that reference. So, we have become a reference for everything, of posture, of material, of equipment [...] because we have been there for a long time! (N11)

Because it is only you and the physician. So I think complicity with the physician is crucial! And sometimes, it is an eye-in-the-eye thing; we do not even have to ask, just

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by looking at each other we are able to interact. And things work better. (N16)

Work in air transportation needs a social living, being "side by side", a feeling of camaraderie and concern for the other. The patient's demands at that moment need to be met and care needs to be provided, and this depends on this fellowship among health professionals to be effective and of quality.

With regard to the nurse's work, this practitioner must have the mastery of technical-scientific knowledge research methodologies applied to health, institutional philosophies and policies, as well as the whole humanistic dimension inseparable from the act of caring in order to develop nursing care.¹⁰

Despite the incessant search for knowledge and skills, health practitioners face, in their daily practice, conflicts and difficult factors. In air transport, there is no way to work with personal conflicts and embarrassing situations in a physical environment in which one can not escape the presence of the other since the location of the seats in the aircraft is "face to face" in the case of airplane, and "side by side" in helicopters.

I think the synchronism with the partner is interesting. Because he/she can calm us down and not make this situation we are experiencing even worse, as in a situation where we can lose that patient! (N7)

The interviewee talks about the synchrony with the partner as something that permeates work in air transportation. Thus, for this joint work to happen, both practitioners must collaborate. Collaboration is defined as a communication process allied to decision making in favor of patient care. This collaborative practice does not include hierarchy, since all members have specific expertise and knowledge in each area, and the objective, which is the improvement and well-being of the patient, is common to all the professionals who work in a shared commitment.¹¹ Faced with this, the collaborative attitude towards the partner and the closeness with which they work allows patient-centered care, with goals that become common to professionals involved in transportation.

Daily work shows a sharing of actions and knowledge in the daily practice of their activities. Each professional has their defined role, but the constant integration between them is necessary. The pursuit of a common goal reinforces the partnership, openness and transparency among team members:

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crucial! And sometimes, it is an eye-in-the-eye thing; we do not even have to ask, just by looking at each other we are able to interact. And things work better. (N16)

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The one who disagrees with the team ends up getting in the way because of that reference. So, we have become a reference for everything, of posture, of material, of equipment [...] because we have been there for a long time! (N11)

There must be interdependence so that work is carried out in a harmonious way and, with this, coherent attitudes of both parties become fundamental. Therefore, complicity means a relationship of homogenization, of partnership, in the meeting of actions, in which there is an opportunity to use theoretical and practical knowledge, with a view to the complete accomplishment of the task and, consequently, a greater accountability of both parties.

The need to learn to relate to others is essential at work. Union, partnership, strengthening mutual trust and the relationship of help become an integral part of this process that can be seen as a professional will.¹² Thus, the feeling of friendship establishes itself as an empathy relationship that unites them:

They are people that we can count on, they are our professional colleagues. Besides, they are very friendly, so we help each other; I think it is worth it. Within this context, right? (N9)

In this scenario, closeness and a relationship of help make work pleasant and facilitate the performance of activities. Treating one another as colleagues implies admitting a mutual risk and establishing a sense of safety to deal with this risk.¹³ Thus, it does not mean having the same view; opinions can be divergent; it is possible to face and dialogue with the other without restrictions.

Therefore, during patient care in air transport, professionals need knowledge that will guide the provision of care. The knowledge embedded in the practices becomes essential, as well as the approximation of the subject, which, in turn, favors the creation of bond in the work environment:

And the interesting thing is that a bond of cooperation has been created, so if one has difficulty the other that is close will help. (N11)

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The situations we all experience here are very delicate. And we try to support each other! (N18)

So I think that the answer is respect, the admiration and the friendship that we have towards our colleagues. After we built all this friendship, this bond and the issue of having available material, this gives me a lot of confidence to work. (N21)

The air transport of a critical patient will only be successful if a careful evaluation of the situation, mainly the stabilization of this patient, is carried out on ground, before the flight. Therefore, the importance of using reliable equipment and materials, which are necessary for the care during the flight, is emphasized.¹⁴

The interviewee refers to support and friendship. This bond of cooperation, in which the emotions are also shared, increases the satisfaction of working in this type of service. "The bond is a mediating tool favoring personal relationships".¹⁵ In this way, it appears as a link of teamwork as it reflects the safety of professionals to work in a troubled and often hostile environment. However, faced with the situations in the daily life, the interviewee mentions some points that could be discouraging to work:

So it is not the financial issue, it is not the comfort issue, because we have all this discomfort, flight time, hypoxia, all of this ... Of working with air travel, high overload, heavy journey. (N21)

This evidences that there is motivation on the part of the professionals to work as a team and that, in practice, it makes possible to withstand all the experienced difficulties, time of flight, hypoxia and the risks of an aerial activity. In this way, knowing the meaning that each interviewee attributes to work becomes a facilitator in the understanding of motivational factors, since each subject has aspirations, future plans for the professional activity, taking into account aspects of personal life. The motivation in aerial activity is considered as a set of factors that directs the behavior, due to internal influences, physiological conditions, attitudes, aspirations and desires.¹⁶

The motivational source is fundamental so that people can work in aerial activities and be psychically balanced. In spite of all the discomfort associated with the difficult factors such as abrupt climatic changes, reduced working space, worsening of the patient's clinical condition, besides several complications, it is observed that work has a meaning:

But what really holds me is the satisfaction with the work that I perform here; the team

that I work that gives a lot of confidence, especially the medical team, they are my partners.

[...] So I trust in them as a person, it is a personality issue, regarding ethics and procedures, and the issue of the material available here. The issue of the work itself really holds me here. (N21)

The interviewees explained the reasons that give them satisfaction and at the same time joy in working with this activity. This work enables alleviating the suffering of the other and saving lives, being a source of satisfaction for the health professional, leading to the psychic balance of these workers. It is a complex and subjective phenomenon.¹⁷ Health professionals who work in emergency services tend to have a strong sense of reward, so this possibility of saving lives and being able to relieve the pain of the other become important motivators.

Although they do not have the same training, they need to interact, express their ideas. Thus, the success of this work depends on a joint action of all the professionals involved. Communication is an essential skill in air transportation, since this kind of service requires that workers have the best possible connection between them:

So, communication skills, being clear, assertive, direct, right?! Trying to identify problems and act on the basis of prevention is very important. (P18)

So, we have to interact with the team, right?! Interaction of the team, synchronicity in communication with the nurse, clarifying the family member on what is happening as soon as possible. (P4)

In the speeches, interviewees referred to the communication with the family, thus demonstrating, in this scenario, a care centered on family, as it is present in this context and at the same time is participant in the entire transportation process. Therefore, it is up to health professionals to guide the transport steps in a clear and objective manner so that there is no embarrassment at the moment of emergency care or in face of any procedures.

In this way, inadequate communication and lack of communication between teams can make air transport catastrophic. However, effective communication between team members on both the ground and in the air needs to happen in an organized way, in order to serve the users with quality. Therefore, interaction among professionals, in this context, becomes the basis of the teamwork process.

CONCLUSION

Finally, the subjective aspects of the actors involved must be taken into account, and the various meanings denoted by health professionals should be considered: union, harmony, interaction, collaboration, bonding, friendship and partnership at work.

Synchronized performance depends, to a large extent, on the interaction and responsibility of those involved. At work, there is a space for interdisciplinary team, with exchanges of knowledge among health professionals. It can be said that teamwork is a reality, but the possibility of accomplishing it becomes a constant challenge in everyday practice.

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